SAND2017-4458R

W88 ALT 370 Program Overview

Sandia National Laboratories

James Handrock, Organization 2100 Director, April 28, 2017

FY17 Accomplishments

All major program milestones have been met and the program is executing within budget. The ALT 370 program achieved Phase 6.4 authorization in February of this year. Five component Final Design Reviews (FDRs) have been completed, indicating progress in finalizing the design and development phase of the program. A series of ground-based qualification activities have demonstrated that designs are meeting functional requirements. The first fully functional flight test, FCET-53, demonstrated end-to-end performance in normal flight environments in February. Similarly, ground-based nuclear safety and hostile environments testing indicates that the design meets requirements in these stringent environments. The first in a series of hostile blast tests was successfully conducted in April.

Schedule

The program is currently on-track to system FDR. Due to late design changes and difficulties getting designs into production, the program is currently predicting a delay of several months to the December 2019 system First Production Unit (FPU). Schedule recovery plans have been developed and are being closely managed. An on-time system FPU is anticipated with successful completion of the recovery plans.

Milestone	Finish Date
Preliminary Design Review and Acceptance Group (PDRAGG)	September, 2016
System Baseline Design Review	March, 2016
Phase 6.4 Authorization	February, 2017
Fifth Development Flight Test, FCET-53	February, 2017
Sixth Development Flight Test, CET-1	May, 2018
AF&F FDR	January, 2018
AF&F FPU	September, 2019
System FDR	January, 2018
System QER	July, 2019
DASO-30 (first qualification flight)	August, 2019
Phase 6.5 Authorization	September, 2019
DASO-29 (second qualification flight)	December, 2019
System FPU	December, 2019

Cost

The W88 ALT 370 is executing within 1% of plan for NNSA and within 3% of plan for Navy funding in FY17. Earned value performance metrics for SNL/DA are CPI=101% and SPI=0.97%. NNSA is unable to fund management reserve in FY17, decreasing the ability to fund potential emerging risks and opportunities.

SNL/DA Cost Estimates	NNSA	Navy
WDCR (July 2012)	$672M	$471M
Baseline Cost Report (May 2016)*	$818M	$436M
Current Estimate at Completion	$1,138M	
Cost to Date	$445M	$249M

**includes authorized baseline changes*

Issues and Concerns

Production Readiness

Schedule recovery plans have been developed for eight components currently showing late to component FPU. Issues include late design changes, vendor delays, and production capacity. Recovery plans are expected to result in an on-time system FPU.

Staffing

The program is challenged to maintain staffing levels needed to keep on plan. Wait times for Q clearances approach two years, decreasing the effectiveness of hiring external candidates. New (MGT, W80-4) and existing (W88 ALT, B61-12, Mk21 AFA) programs will exert staffing pressures on the laboratory in a broad sense.

W88 ALT 370 meeting program milestones. Managing issues to maintain FPU.